

Appendix B: Skills and Technology

FEMA intends to leverage new technologies and expand its skill base to the maximum extent possible to achieve the FY 2001 annual performance goals in this plan. The skills and technology required are outlined below, organized by the strategic goals to which they contribute.

Strategic Goal I: Protect lives and prevent the loss of property from all hazards

Skills required to achieve the mitigation goals include engineering (hydraulic, fire protection and structural), land-use planning, earth science (geology, geophysics, seismology), modeling, actuarial, and geographic information system computer skills. Skills required to achieve the preparedness goals include EM planning; exercise design and evaluation; technical knowledge of health effects and protective measures associated with hazardous materials (e.g. nuclear, biological, and chemical agents); knowledge of safety concerns related to nuclear power plants, chemical weapons disposal, and disaster response and recovery operations; training design and delivery; and customer service principles and techniques.

GIS technology is used as a tool to support all aspects of emergency management (mitigation, preparedness, response, and recovery). The HAZUS loss-estimation methodology is based on an integrated GIS concept. FEMA has already provided this tool and the GIS technology on which it is based to all State EM organizations. FEMA is also using the latest advances in remote-sensing technologies to support the national floodplain-mapping program and to assist in all-hazard risk assessments.

The insurance mechanism—employing underwriting, claims, marketing, actuarial, and financial skills and systems—is used to reinforce mitigation, preparedness, response, and recovery goals and objectives. Insurance is

used to promote individual and business preparedness and responsibility, mitigate the scope of future flood disaster losses, alleviate economic distress, and reduce the overall federal costs of flood disasters.

Achievement of the annual performance goals for preparedness uses the Emergency Information Infrastructure Partnership, an established website that identifies issues pertaining to the development of EM capability submitted by interested parties throughout the world.

Strategic Goal 2: Reduce human suffering and enhance the recovery of communities after disaster strikes

Skills required to achieve the response goals include intergovernmental, interagency, and media relations; management of temporary work teams; ability to provide customer service; and specialized skills, such as those required for incident command, emergency operations, disaster field operations, logistics, and urban search and rescue.

To implement more efficient and effective response and recovery and achieve the annual performance goals, FEMA continues to integrate high-performance technology into its data-collection and program management activities. Resources in use or being completed include:

- **GIS**—sophisticated mapping technology that enables high-quality imaging of areas affected by disasters;
- **Geographic Processing System**—makes it possible to pinpoint the location of damage sites and floodplains;
- **Integrated Financial Management System**—supports tracking of budget accounts;
- **Applicant Assistance Centers**—centralizes and consolidates disaster applicant information, enabling more efficient responses to applicant inquiries;
- **Computer Networks**—connect headquarters, regional offices, and DFOs to facilitate information sharing;
- **National Emergency Management Information System**—deployed in FY 1999, NEMIS automates FEMA’s disaster programs including incident activities, preliminary damage assessment, declaration processing, human services, infrastructure support, mitigation, and associated administrative and financial processing; and

- *Logistics Information Management System*—provides agency management of personal property, disaster materiel, and logistics information.

Strategic Goal 3: Ensure that the public is served in a timely and efficient manner

Skills required to achieve the annual performance goals for efficiency include planning, programming, budgeting, accounting, procurement, and debt collection.

FEMA uses IT to facilitate and improve control of business processes. In line with the provisions of the Clinger-Cohen Act and Office of Management and Budget guidance, FEMA manages the IT assets as a coherent, unified, business portfolio.

The core of the agency's IT approach has been the development of the FEMA IT enterprise architecture, by which the planning, budgeting, and development of information services will be organized. The objectives of the architecture are to provide a standardized infrastructure, leverage current capital investments, empower a more robust exchange of information within FEMA and with its customers, and to provide a blueprint for specific technology solutions. By pursuing an integrated agency-wide approach to IT enterprise architecture, FEMA has identified the potential for sharing resources, eliminating redundant capabilities, realizing significant cost savings, and expanding the range of services and operations. To achieve the Agency's strategic objectives, FEMA plans, budgets, develops, and operates its IT in the style of a corporate management environment.

